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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,363	12/03/2004	Junichi Isetani	96790P475	3977

8791 7590 09/12/2006

BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
SEVENTH FLOOR  
LOS ANGELES, CA 90025-1030

EXAMINER

KRAMER, DEAN J

ART UNIT PAPER NUMBER

3652

DATE MAILED: 09/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/517,363	Applicant(s) ISETANI ET AL.	
	Examiner Dean J. Kramer	Art Unit 3652	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12/3/04, 5/31/05, 3/16/06, 6/21/06.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 31-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no clear antecedent basis for "said lifting portion as recited in the last line of claim 31.

Further, claims 35 and 36 are confusing in that it is unclear whether the phrase "an air suction port", as recited in the fourth line of these claims, is meant to be a different structural element from "the air suction port" previously recited in the third lines of these claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 3652

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 21, 27, 31, 33, 34, 37, and 38, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Palmer (4,653,741).

Palmer shows a vacuum gripping device comprising a nozzle (18), a vacuum supply unit (16), a sensor (10) for detecting air flow and producing an output signal (64) indicating the presence or absence of a part, and a board (52) which forms one wall of a channel (20).

5. Claims 21, 23-25, 27, 31, 33, 34, and 37, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Schmalz et al. (6,817,639).

The patent to Schmalz et al. shows a suction gripping assembly that contains all of the structural limitations as broadly as recited in the above claims including a sensor (26) which can detect "a flow rate or flow speed" (see col. 3, lines 45 and 46).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

Art Unit: 3652

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 22, 32, 39, and 40, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over either Palmer or Schmalz et al. in view of Japanese Patent No. 2002-071416.

The Japanese ('416) patent shows a sensing means comprising a heater (4) and a plurality of temperature sensors (5a-5d) in which the flow rate of gas is measured based on temperature distribution.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a sensor similar to that shown in the Japanese ('416) patent as the flow rate sensor of either the Palmer or Schmalz et al. device as an alternative yet functionally equivalent means of detecting a change in air flow that would perform effectively in handling relatively small parts.

9. Claims 28-30, 35, and 36, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over either Palmer or Schmalz et al. in view of Japanese Patent No. 2000-259255.

Both Palmer and Schmalz et al. fail to specifically disclose the speed of the air flowing through their nozzles or sensors.

However, Japanese Patent No. 2000-259255 is capable of measuring a flow rate at the speed of sound.

Accordingly, it would have been obvious to a person having ordinary skill in the art to provide a high rate of air flow (e.g. sonic speed) through either the Palmer or Schmalz et al. device as taught by the Japanese ('255) patent in order to create a strong suction force at the nozzle opening.

10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Palmer or Schmalz et al. in view of Japanese Patent No. 7-314371.

Neither the Palmer nor the Schmalz et al. devices show a *plurality* of nozzles sharing a vacuum to lift different parts.

However, the Japanese ('371) patent shows a plurality of suction nozzles each equipped with its own sensor for handling a plurality of parts.

It would have been obvious to one of ordinary skill in the art to provide a plurality of vacuum grippers similar to either the Palmer or Schmalz et al. devices to handle multiple parts as is shown old and well known in the Japanese ('371) patent in order to increase production.

#### ***Information Disclosure Statement***

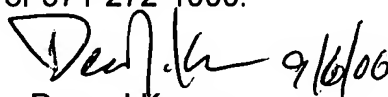
11. It is pointed out that some of the references on some of the Information Disclosure Statements have been lined through because these references were already listed on the IDS filed December 3, 2004.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean J. Kramer whose telephone number is (571) 272-6926. The examiner can normally be reached on Mon., Tues., Thurs., Fri..

Art Unit: 3652

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Dean J. Kramer", followed by the date "9/6/06".

Dean J Kramer  
Primary Examiner  
Art Unit 3652

djk  
9/6/06